REMARKS

Claims 1-12 are pending in this application. Claims 1, 7, 8, 9, and 10 have been amended herein in order to more particularly point out, and distinctly claim the subject matter to which the applicants regard as their invention. The applicants respectfully submit that no new matter has been added. It is believed that this Amendment is fully responsive to the Office Action dated **September 27, 2004**.

The amendments to claims are discussed below in regard to the objections and rejections.

The title of the invention is objected to. (Office action paragraph no. 1)

The objection is overcome by the amendment to the title.

Claim Objections (Office action paragraph no. 2)

Claim 1 is objected to because on line 17 "and" should be replaced with "or." The Examiner refers to the recitation: "... at least one of the following conditions (a) and (b) is satisfied." This objection is respectfully traversed. Applicant submits that this recitation of the claim is grammatically correct, since "(a) and (b)" represents an itemization of the "following conditions". This expression represents an alternative between (a) and (b), but the substitution of "or" for "and" would not be grammatically correct.

Claims 7 and 8 are objected to as being of improper dependent form for failing to further limit the subject matter of a previous claim. This objection is objection is overcome by the amendments to claims 7 and 8. The amendment to claim 7 limits the parameter [N] to be 45 or more. Support for this recitation may be found on page 33, line 29, of the specification. The amendment to claim 8 limits the aspect ratio to be 15 to 300. Support for this recitation may be found on page 33, line 2, of the specification.

Claim 10 is objected to because of a typographical error. The objection is overcome by the amendment to claim 10.

Claims 1-9 have been rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 8 and 9 of U.S. Patent No. 6,239,195 B1. (Office action paragraph no. 3)

Claims 1-9 are directed to an invention not patentably distinct from claims 8 and 9 of commonly assigned U.S. Patent No. 6,239,195 B1. (Office action paragraph no. 4)

Claims 1-9 are rejected under 35 U.S. C. §103(a) as being obvious over U.S. Patent No. 6,239,195 B1. (Office action paragraph no. 5)

Since all of these rejections are based on the same reference, Applicant addresses the rejections together here. With regard to the rejection under 35 U.S.C. 103(a), Applicant also notes that U.S. Patent No. 6,239,195 is also equivalent to Suzuki et al. WO 97/43343, cited below in a rejection under 35 U.S.C. 102(b).

These rejections are overcome by the amendments to claim 1.

Claim 1 has been amended to limit the recited resin to thermoplastic polyester. Accordingly, the clause in original claim 1, "wherein in the case where the resin is a thermoplastic polyester, ..." recites a required situation, and the redundant recitation "in the case where the resin is a thermoplastic polyester" has been deleted.

As a result of this amendment, therefore, at least one of the following conditions (i) to (iii) defined in claim 1 is satisfied:

> (i) a difference (η_e-3η) between an extensional viscosity η_e and the triple value of a shear viscosity η of the resin composition is 300 Pa·s or more at a temperature of 280°C and a rate of strain of 100 (1/s);
> (ii) between a rate of strain of 100 (1/s) and a rate of strain of 1000 (1/s), a difference ($\geq\eta_e$) of values of the extensional viscosity η_e of the resin composition at a temperature of 280°C is 500 Pa·s or more; and
> (iii) a product $J_{e0}\eta_0$ of equilibrium compliance J_{e0} and zero shear viscosity η_0 of the resin composition at a temperature of 280°C is 0.8 seconds or more.

The amendment to claim 9 amends the wording "mixing a polymerizable prepolymer and the clay dispersion" to -- adding the clay dispersion to a polymerizable prepolymer continuously or sequentially over time and mixing the polymerizable prepolymer and the clay dispersion–. Support for this recitation is found on page 55, lines 3-5, of the specification. The recitation regarding "in the case where a resin is a thermoplastic polyester" has been deleted, since the resin in claim 1 is now limited to a thermoplastic polyester.

Applicant submits that the aforementioned rheologic properties are achieved by the method of amended claim 9 comprising step (B), i.e., a step of adding the clay dispersion to a polymerizable

prepolymer continuously or sequentially over time and mixing and the polymerizable prepolymer and the clay dispersion.

Applicant notes that since the present invention has the aforementioned rheologic property, the effects on the improvement in mechanical properties, heat resistance and dimensional stability are efficiently achieved without damaging surface quality. Further, the effects on the improvement of molding conditions such as cooling time and mold temperature, and improvement in releasability and molding cycle are efficiently achieved, as described at page 129, lines 9-19 of the present specification.

Applicant submits that the rheological properties of recited conditions (i) to (iii) **are not disclosed in, inherent in, or suggested by U.S. '195**.

U.S. '195 describes that the silane-foliated phyllosilicate (B) "is added to the monomer" (column 14, lines 42-49) and that slurry a and BHET were "put in an autoclave" (column 25, lines 34-42). Thus, U.S. '195 suggests that the dispersion is added to the monomer at once and fails to describe or suggest that the clay dispersion is added to a polymerizable prepolymer continuously or sequentially over time, as recited in amended claim 9. Recited conditions (i) to (iii) are therefore not achieved in U.S. '195 for the following reasons:

(1) According to the method of U.S. '195, the dispersion is added to the prepolymer at once and therefore a sufficient interaction between the dispersion and the prepolymer is not achieved. However, in the method of amended claim 9 of the present invention, the dispersion is added to the

prepolymer continuously or sequentially over time and therefore a sufficient interaction between the dispersion and the prepolymer is achieved.

(2) According to the method of U.S. '195, a large amount of the dispersion is added to the prepolymer at once and therefore the temperature of the mixture is lowered, thus a sufficient interaction between the dispersion and the prepolymer is not achieved. However, in the method of amended claim 9 of the present invention, a large amount of the dispersion is not added at once, so that a high temperature of the mixture is maintained and therefore a sufficient interaction between the dispersion and the prepolymer is achieved.

(3) According to the method of U.S. '195, as described above, the temperature of the mixture is lowered. Therefore, a large amount of the dispersion medium (e.g., water) remains in the mixture after mixing the dispersion and the prepolymer, thereby the resin is hydrolyzed. However, in the method of amended claim 9 of the present invention, the high temperature of the mixture is maintained. Therefore, a large amount of the dispersion medium (e.g., water) is removed at the time of mixing the dispersion and the prepolymer, thereby the resin is not hydrolyzed.

Therefore, the method of U.S. '195 cannot achieve the effects on the improvement in mechanical properties, heat resistance and dimensional stability, as well as the effects on the improvement of molding conditions such as cooling time and mold temperature, and improvement in releasability and molding cycle.

Applicant therefore submits that the method disclosed in U.S. '195 **cannot achieve** the aforementioned rheologic properties of conditions (i)-(iii) of amended claim 1 of the present

application, and that claims 1-9 are unobvious over this reference. Applicant also submits that there is also no issue of double patenting of the present claims, as amended, over U.S. '195, which does not claim conditions (i) to (iii) recited in present claim 1.

Claims 1 and 4-8 have been rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 6,583,208 B1. (Office action paragraph no. 6)

Claims 1 and 4-8 are directed to an invention not patentably distinct from claims 1-4 of commonly assigned U.S. Patent No. 6,583,208 B1. (Office action paragraph no. 7)

The rejection of claims 1 and 4-8 is obviated by the filing of a terminal disclaimer over U.S. Patent No. 6,583,208. The terminal disclaimer papers accompany this Amendment.

Claims 1-12 are rejected under 35 U.S.C. §102(b) as being anticipated by Suzuki et al. (WO 97/43343). (Office action paragraph no. 8)

As Applicant has noted above, Suzuki et al. WO 97/43343 is equivalent to U.S. Patent No. 6,239,195. As noted above in regard to the rejections over U.S. 6,239,195, WO 97/43343 fails to describe or suggest step (b) of amended claim 9, or rheological conditions (i) to (iii) which are required in amended claim 1.

Therefore, claims 1-12 of the present invention are novel and unobvious over WO 97/43343.

In view of the aforementioned amendments and accompanying remarks, the present application, as amended, is in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, KRATZ, QUINTOS,
HANSON & BROOKS, LLP

Daniel A. Geselowitz, Ph.D.
Agent for Applicants
Reg. No. 42,573

DAG/lrj
Atty. Docket No. **010507**
1725 K Street, N.W.; Suite 1000
Washington, D.C. 20006
(202) 659-2930

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